Inventors: David E. Spence, Alan B. Petersen, and James D. Kafka

ABSTRACT

DIAMOND COOLED LASER GAIN ASSEMBLY

An optical system includes a laser oscillator or a laser amplifier. The optical system includes a gain medium that is optically coupled to a pump source. A solid cooling element is in physical contact with, but not bonded to, a cooling surface of the gain medium. A mounting apparatus holds the solid cooling element to the gain medium. In a preferred embodiment the gain medium is a thin disk gain medium and the solid cooling-element is made from CVD-diamond.